All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States"(USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote todetermine the meaning of these columns. Spot symbols are footnoted at the end of the table.

M				Hydric soils criteria				
Map symbol and map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria		
Ba:								
BEARDEN LOAM	BEARDEN	No						
	DIVIDE GRASSNA	No No						
	SPOTTSWOOD	No						
Bc: BOWBELLS-CRESBARD	BOWBELLS	No						
LOAMS	CRESBARD	No						
	NISHON	Yes	pothole	2B3,3	YES	NO NO	YES	
	PARNELL	Yes	pothole	2B3,3	YES	NO	YES	
	RANSLO	No						
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
BoA: BOWDLE LOAM, 0 TO 2 PERCENT SLOPES	BOWDLE	No						
PERCENI SLOPES	DIVIDE	No						
	LEHR	No						
	SPOTTSWOOD	No						
	NISHON	Yes	pothole	2B3,3	YES	NO	YES	
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
BoB: BOWDLE LOAM, 2 TO 6 PERCENT SLOPES	BOWDLE	No						
1 2102111 220122	LEHR	No						
	SPOTTSWOOD	No						
	NISHON	Yes	pothole	2B3,3	YES	NO	YES	
D-0.7.	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
BrA: BRYANT LOAM, 0 TO 2 PERCENT SLOPES	BRYANT	No						
	GRASSNA	No						
	NIOBELL	No						
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
	NISHON	Yes	pothole	2B3,3	YES	NO	YES	
	NOONAN	No						
BrB:	TALLY	No						
BRYANT LOAM, 2 TO 6 PERCENT SLOPES	BRYANT	No						
	BEARDEN	No						
	GRASSNA	No						
	NISHON	Yes	pothole	2B3,3	YES	NO	YES	
	TALLY	No						
	TONKA WILLIAMS	Yes No	pothole	2B3,3	YES	NO I	YES	
BrC:	MIDDIAMS	INO						
BRYANT LOAM, 6 TO 9 PERCENT SLOPES	BRYANT	No						
	TALLY	No						
	WILLIAMS	No						
	ZAHILL	No	notholo	202 2	VEC		VEC	
BvA:	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
BRYANT LOAM, SAND SUBSTRATUM, 1 TO 3	BRYANT	No						
PERCENT SLOPES	BOMDI E	Ma						
	BOWDLE GRASSNA	No No						
	NISHON	Yes	pothole	3,2B3	YES	NO	YES	
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	

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Mon gymbol and				Hydric soils criteria				
Map symbol and map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria		
BxB: BRYANT-GRASSNA LOAMS, 2 TO 6 PERCENT SLOPES	BRYANT	No						
	GRASSNA BEARDEN NISHON TALLY TONKA	No No Yes No Yes	pothole	2B3,3 3,2B3	 YES YES	NO	 YES YES	
Dv:			-	,				
DIVIDE LOAM	DIVIDE BOWDLE SPOTTSWOOD HARRIET REGAN	No No No Yes Yes	 flood plain flood plain	 2B3 2B3,4	 YES YES	 NO YES	 NO NO	
EdE: EDGELEY LOAM, 6 TO 20 PERCENT SLOPES		No						
	BOWBELLS VIDA WILLIAMS ZAHILL	No No No No	 	 	 	 	 	
GP: GRAVEL PITS	ORTHENTS,	No						
Gr:	GRAVEDET							
GRASSNA LOAM	GRASSNA BEARDEN TONKA NISHON	No No Yes Yes	 pothole pothole	 2B3,3 2B3,3	 YES YES	 NO NO	 YES YES	
He: HEIL SILT LOAM	HEIL NISHON PARNELL TONKA	Yes Yes Yes Yes	pothole pothole pothole pothole	2B3,3 2B3,3 2B3,3 2B3,3	YES YES YES YES	NO NO NO NO	YES YES YES YES	
LeA: LEHR LOAM, 0 TO 3 PERCENT SLOPES	LEHR	No						
	BOWDLE DIVIDE SPOTTSWOOD WABEK NISHON TONKA	No No No No Yes Yes	 pothole pothole	2B3,3 2B3,3	 YES YES	 NO NO	 YES YES	
LeB: LEHR LOAM, 3 TO 6 PERCENT SLOPES	LEHR	No						
I INCINI GIOFEG	BOWDLE SPOTTSWOOD DIVIDE WABEK MARYSLAND TONKA	No No No No Yes Yes	 flood plain pothole	 2B3 2B3,3	 YES YES	 NO NO	 NO YES	

Man				Hydric soils criteria				
Map symbol and map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria		
LhB:								
LEHR-BOWDLE LOAMS, 0 TO 6 PERCENT SLOPES	LEHR	No						
	BOWDLE	No						
	BRYANT	No						
	WABEK	No						
	MARYSLAND	Yes	flood plain	2B3	YES	NO	NO	
	NISHON TONKA	Yes Yes	pothole pothole	2B3,3 2B3,3	YES YES	NO NO	YES YES	
Lt:	TONKA	ies	pornore	2D3,3	IES	NO	IES	
LETCHER FINE SANDY	LETCHER	No						
2011.	MIRANDA	No						
	NIOBELL	No						
	NOONAN	No						
	TALLY	No						
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
	WILLIAMS	No						
Lv: LA PRAIRIE, CHANNELED AND RANSLO SOILS	LA PRAIRIE	No						
AND RANGEO BOILD	RANSLO	No						
	BOWBELLS	No						
	GRASSNA	No						
	HARRIET	Yes	flood plain	2B3	YES	NO	NO	
M-W: MISCELLANEOUS WATER	MISCELLANEOU							
Mb:	S WATER							
PARNELL, PONDED	PARNELL	Yes	pothole	2B3,3	YES	NO	YES	
THEVELE, TONDED	PARNELL	Yes	pothole	2B3,3	YES	NO	YES	
	HEIL	Yes	pothole	3,2B3	YES	NO	YES	
MdA: MONDAMIN SILTY CLAY LOAM, 0 TO 2 PERCENT	MONDAMIN	No						
SLOPES	DOLLDI E							
	BOWDLE	No						
	BRYANT BEARDEN	No No						
	HEIL	Yes	pothole	2B3,3	YES	NO	YES	
	TALLY	No						
	TONKA	Yes	pothole	2B3,3	YES	NO	YES	
MdB: MONDAMIN SILTY CLAY LOAM, 2 TO 6 PERCENT	MONDAMIN	No						
SLOPES								
	BEARDEN	No						
	BOWDLE	No						
	BRYANT	No						
	VIDA	No						
	WILLIAMS	No		2 2D2				
Mh:	TONKA	Yes	pothole	3,2B3	YES	NO	YES	
MN: MONDAMIN-HEIL SILTY CLAY LOAMS	MONDAMIN	No						
	HEIL	Yes	pothole	2B3,3	YES	NO	YES	
	BEARDEN	No						
	BRYANT	No						
	NISHON	Yes	pothole	3,2B3	YES	NO	YES	

				Hydric soils criteri			a	
Map symbol and map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria		
NmA: NIOBELL-MIRANDA LOAMS, 0 TO 3 PERCENT SLOPES	NIOBELL	No						
	MIRANDA BOWBELLS HEIL NOONAN WILLIAMS TONKA	No No Yes No No Yes	pothole	2B3,3 3,2B3	 YES YES	 NO NO	 YES YES	
NpB: NIOBELL-NOONAN LOAMS, 1 TO 5 PERCENT SLOPES	NIOBELL	No						
	NOONAN BOWBELLS BRYANT GRASSNA HEIL MIRANDA TALLY	No No No No Yes No	 pothole	3,2B3	 YES	 NO 	 YES	
Or: ORTHENTS, LOAMY	ORTHENTS, LOAMY ORTHENTS, SHALY	No No						
Pa: PARNELL SILTY CLAY LOAM	PARNELL	Yes	pothole	2B3,3	YES	NO	YES	
Dl	HEIL TONKA NISHON	Yes Yes Yes	pothole pothole pothole	2B3,3 2B3,3 3,2B3	YES YES YES	NO NO NO	YES YES YES	
Rh: RANSLO-HARRIET SILT LOAMS	RANSLO	No						
Do 4	HARRIET BEARDEN DIVIDE GRASSNA SPOTTSWOOD	Yes No No No No	flood plain	2B3 	YES	NO	NO	
Rn: REGAN SILT LOAM	REGAN DIVIDE HARRIET PARNELL RANSLO SPOTTSWOOD TONKA	Yes No Yes Yes No No Yes	flood plain flood plain pothole pothole	2B3,4 2B3 3,2B3 2B3,3	YES YES YES YES	YES NO NO NO	NO NO YES YES	
Sp: SPOTTSWOOD LOAM	SPOTTSWOOD BOWDLE DIVIDE LEHR REGAN	No No No No Yes	 flood plain	 2B3,4	 YES	 YES	 NO	

TALLY FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES BRYANT NO NOONAN NO NOONAN NO REGAN TEMVIK NO REGAN TEMVIK NO HELL NO	Man armi11				Hydric soils criteria				
TALLY FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES BRYANT NO NOONAN NO NOONAN NO REGAN TEMVIK NO REGAN TEMVIK NO HELL NO		Component	Hydric	Local landform	criteria	saturation	flooding	ponding	
LOAM, 2 TO 6 PERCENT SLOPES BRYANT No	TaB:								
BRYANT No	LOAM, 2 TO 6 PERCENT	TALLY	No						
LETCHER No NIOBELL NI NIO NIODEN NIO NIODEN NIO NIODEN NIO NIODEN N	510115	BRYANT	No						
NIOBELL NO NOONAN NO WILLIAMS NO REGAN YES FORD NOONAN NILLIAMS NO REGAN YES FORD NOONAN NILLIAMS NO REGAN YES FORD NOONAN NILLIAMS NO NOONAN NILLIAMS NOONAN NOONAN NILLIAMS NOONAN NOONAN NILLIAMS NILLIAMS NOONAN NILLIAMS NILLIAMS NILLIAMS NOONAN NILLIAMS NILLIAM									
NOONAN No			1						
TEMVIK									
TEMPLIK BRYANT LOAMS, 2 TO 6 PERCENT BRYANT NO									
TEMPLIK BRYANT LOAMS, 2 TO 6 PERCENT BRYANT NO		REGAN	Yes	flood plain	4,2B3	YES	YES	NO	
SLOPES BRYANT No	TbB:			_	,				
BEARDEN No	2 TO 6 PERCENT	TEMVIK	No						
GRASSNA No -		BRYANT	No						
TALLY NO		BEARDEN	No						
HEIL Yes Pothole 2B3,3 YES NO YES		GRASSNA	No						
NISHON Yes Pothole 3,283 YES NO YES		TALLY	No						
TONKA		HEIL	Yes	pothole	2B3,3	YES	NO	YES	
TEMVIK—GRASSNA LOAMS, 3 TO 6 PERCENT SLOPES GRASSNA NO BOWBELLS NO BRYANT NO HEIL Yes NO YES TONKA PERCENT SLOPES GRASSNA NO DO		NISHON	Yes	pothole	3,2B3	YES	NO	YES	
Temvik-Grassna Loams, 3 to 6 percent Slopes Slopes Grassna No		TONKA	Yes	pothole	3,2B3	YES	NO	YES	
GRASSNA NO BOWBELLS NO	3 TO 6 PERCENT	TEMVIK	No						
BRYANT No	SLOPES	GRASSNA	1						
WILLIAMS						1	l		
HEIL Yes pothole 3,2B3 YES NO YES NISHON Yes pothole 2B3,3 YES NO YES TONKA Yes pothole 2B3,3 YES NO YES TONKA Yes pothole 2B3,3 YES NO YES TONKA Yes pothole 2B3,3 YES NO YES TEMVIK No SLOPES GRASSNA No GRASSNA No BRYANT No LEHR No VIDA No TONKA Yes pothole 2B3,3 YES NO YES TONKA-NISHON SILT TONKA Yes pothole 2B3,3 YES NO YES TONKA-NISHON SILT TONKA Yes pothole 2B3,3 YES NO YES TONKA-NISHON Yes pothole 3,2B3 YES NO YES VIDA EXTREMELY STONY LOAM, 3 TO 15 PERCENT SLOPES WABEK No WILLIAMS No WABEK No WILLIAMS NO TONKA TON									
NISHON Yes Pothole 2B3,3 YES NO YES YES YES NO YES									
TGC: TEMVIK-GRASSNA LOAMS, 6 TO 9 PERCENT SLOPES GRASSNA BOWBELLS NO BRYANT NO LEHR NO VIDA ZAHILL NO TONKA Yes Pothole Pothole 2B3,3 YES NO YES NO YES									
TEMVIK GRASSNA LOAMS, 6 TO 9 PERCENT SLOPES GRASSNA NO SLOPES GRASSNA NO									
TEMVIK-GRASSNA LOAMS, 6 TO 9 PERCENT SLOPES GRASSNA NO		TONKA	Yes	pothole	2B3,3	YES	NO	YES	
GRASSNA NO BOWBELLS NO BRYANT NO	TEMVIK-GRASSNA LOAMS,	TEMVIK	No						
BRYANT	SLOPES	GRASSNA	No						
LEHR		BOWBELLS	No						
VIDA		BRYANT	No						
ZAHILL		LEHR	1			l .	l		
TONKA Yes pothole 2B3,3 YES NO YES TONKA—NISHON SILT TONKA—NISHON SILT TONKA—NISHON SILT TONKA—NISHON Yes pothole 2B3,3 YES NO YES NO YES NO YES POTHOLE 3,2B3 YES NO YES NO YES NO YES WABEK NO ———————————————————————————————————							l		
TONKA-NISHON SILT TONKA Yes pothole 2B3,3 YES NO YES LOAMS NISHON Yes pothole 2B3,3 YES NO YES NO YES POTHOLE 3,2B3 YES NO YES POTHOLE 3,2B3 YES NO YES NO YES POTHOLE AND NO						1			
TONKA-NISHON SILT LOAMS NISHON		TONKA	Yes	pothole	2B3,3	YES	NO	YES	
NISHON	Γn:								
HEIL									
VdC: VIDA EXTREMELY STONY LOAM, 3 TO 15 PERCENT SLOPES WABEK WILLIAMS NO PARNELL Yes pothole 3,2B3 YES NO YES NO YES									
VIDA EXTREMELY STONY VIDA NO LOAM, 3 TO 15 PERCENT SLOPES WABEK NO									
VIDA EXTREMELY STONY		PARNELL	Yes	pothole	3,2B3	YES	NO	YES	
WABEK	VIDA EXTREMELY STONY LOAM, 3 TO 15	VIDA	No						
WILLIAMS No	LEVCENI STORES	MYBER	NT.C						
						1	l		
		TONKA	Yes	pothole	2B3,3	YES	NO	YES	

Man gymbol and				Hydric soils criteria				
Map symbol and map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria		
VwC: VIDA-WILLIAMS LOAMS, 6 TO 15 PERCENT	VIDA	No						
SLOPES	 WILLIAMS	No						
	BOWBELLS TONKA	No Yes No	pothole	2B3,3	YES	NO 	YES	
	ZAHILL HEIL	Yes	pothole	3,2B3	YES	NO	YES	
VzE: VIDA-ZAHILL LOAMS, 15 TO 25 PERCENT SLOPES	VIDA	No						
10 25 PERCENT SLOPES	ZAHILL	No						
	BOWBELLS PARNELL	No Yes	pothole	3,2B3	YES	NO	YES	
	WILLIAMS TONKA	No Yes	 pothole	2B3,3	YES	NO	YES	
W: WATER	WATER	Unrank ed						
WaD: WABEK LOAM, 6 TO 20	WABEK	No						
PERCENT SLOPES	BOWDLE	No						
	LEHR	No						
WbC: WABEK-BOWDLE LOAMS, 6	TONKA BOWDLE	Yes No	pothole 	3,2B3 	YES	NO 	YES	
TO 15 PERCENT SLOPES	 WABEK BOWBELLS	No No				 		
	LEHR	No						
	TALLY NISHON TONKA	No Yes Yes	pothole	3,2B3 2B3,3	YES YES	NO NO	YES YES	
WnB: WILLIAMS-BOWBELLS LOAMS, 3 TO 6 PERCENT SLOPES	WILLIAMS	No						
121102111 520125	BOWBELLS BRYANT	No No						
	CRESBARD NIOBELL NISHON TONKA	No No Yes Yes	pothole	 2B3,3 2B3,3	YES	 NO NO	 YES YES	
WnC: WILLIAMS-BOWBELLS LOAMS, 6 TO 9	VIDA WILLIAMS	No No						
PERCENT SLOPES	BOWBELLS	No						
	BRYANT CRESBARD PARNELL	No No Yes	 pothole	 2B3,3	 YES	NO	 YES	
	TEMVIK TONKA VIDA	No Yes No	pothole	2B3,3	YES	NO 	YES	

Map symbol and				Н	ydric soils	criteria	
map unit name	Component	Hydric	Local landform	Hydric criteria code	Meets saturation criteria	Meets flooding criteria	
WtA: WILLIAMS-BOWBELLS- NISHON COMPLEX, 0 TO 2 PERCENT SLOPES	WILLIAMS	No					
	BOWBELLS NISHON CRESBARD	No Yes No	pothole	2B3,3	YES	NO 	YES
Web	NIOBELL NOONAN TONKA	No No Yes	 pothole	 3,2B3	 YES	 NO	 YES
WtB: WILLIAMS-BOWBELLS- NISHON COMPLEX, 2 TO 6 PERCENT SLOPES	WILLIAMS	No					
	BOWBELLS NISHON NOONAN BRYANT NIOBELL	No Yes No No	pothole 	2B3,3 	YES	NO 	YES
WyC:	LEHR PARNELL TONKA	No Yes Yes	pothole	2B3,3 2B3,3	YES YES	NO NO	YES YES
WILLIAMS-BOWBELLS- PARNELL COMPLEX, 6 TO 9 PERCENT SLOPE S	WILLIAMS	No					
	BOWBELLS PARNELL BRYANT CRESBARD	No Yes No No	pothole	3,2B3 	YES 	NO 	YES
	LEHR NISHON TONKA VIDA	No Yes Yes No	pothole pothole	2B3,3 2B3,3	YES YES	NO NO	YES YES

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Map symbol and				HZ	ydric soils	criteria	
map unit name	Component	Hydric	landform	Hydric criteria code	Meets saturation criteria		

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use an management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.

Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

- 1. All Histosols except Folists, or
- 2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:
 - a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or
 - b. poorly drained or very poorly drained and have either:
 - (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),
 - (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or
 - (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or
- 3. Soils that are frequently ponded for long duration or very long duration during the growing
- 4. Soils that are frequently flooded for long duration or very long duration during the growing